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ABSTRACT

This annotated bibliography of research in agricultural education includes 33 studies completed in 1969-70 in states of the American Vocational Association Pacific Region. A list of 18 studies in progress in 1969-70 is also included. The abstracts are organized according to each study's purpose, methods, and findings. Some studies are available for loan as indicated in each abstract. A brief outline for preparation of a thesis or dissertation summary is included. (GB)

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SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION

Pacific Region, 1969-1970

an annotated bibliography of studies in agricultural education

Department of Applied Behavioral Sciences
University of California
Davis, California

December, 1970

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SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION
PACIFIC REGION
1969-70

Compiled by
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Issued at

Department of Applied Behavioral Sciences
College of Agricultural and Environmental Sciences
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INTRODUCTION

This compilation of research in agricultural education includes studies completed during 1969-70 in states of the Pacific Region.

All studies submitted by teacher educators are included in this report although some may not meet the criteria that were established for the selection of studies for the U. S. Office of Education publication, Summaries of Studies in Agricultural Education.

The compilation of abstracts of research in agricultural education is an activity of the Research Committee of the Agricultural Education Division of the American Vocational Association.

During 1969-70 no Regional Research Seminar was conducted in the Pacific Region so this report does not include a summary of that activity.

Elwood M. Juergenson
Pacific Region Representative
Research Committee
Agricultural Education Division
AVA

December 1970

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ADAMS, LESLIE ROY. A Study to Determine the Need for Cooperative Occupational Experience Programs in the Kennewick School District. Thesis, M. S., Ag. Ed., 1970, Washington State University. 65p. Washington State University, Pullman.

Purpose. -- The purpose of this study was two-fold: 1) to determine the need for additional cooperative experience programs in the Kennewick School District, and 2) to design a survey instrument for measuring need for cooperative experience programs.

Methods. -- Food service, agricultural-related, and business and office-related firms were studied. A questionnaire was constructed which consisted of three sections. Sections 1 and 3 contained general questions regarding the business used in each of the three areas. Section 2 was developed to gather specific information about the importance of training competencies prior to and during a cooperative experience program in each entry-level job title identified in the study.

The questionnaire was used in a personal interview with owners and managers of a sampling of fifteen agricultural-related firms, twelve food service firms, and fifteen businesses believed to employ persons needing business and office education training. Competencies needed for the various entry-level job titles which exist in the firms surveyed were obtained through the use of the instrument.

Findings. -- Cooperative occupational experience program development in the food service industry appears promising. Expansion into such programs in the agricultural-related and business and office areas should proceed with caution.because of the wide variety of entry-level job titles which were identified. The samples indicated a favorable attitude toward cooperative occupational experience in the community. It seems that employers are concerned with attitude development training in addition to basic skills for entry-level jobs. Students are interested in cooperative occupational experience if it is offered.

Development of cooperative programs requires considerable organization in order to allow for coordinator's time and to provide a curriculum designed to provide competencies for a wide variety of entry-level jobs.

AMATOR, FRED LLOYD. A Model Concept for Utilizing Land-Livestock Laboratories. Research Report, M. Ag. Ed., 1970, Univeristy of Arizona, Tucson. 98 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- To investigate the model concept for utilizing land-livestock laboratories.

Method. -- A model concept was described as a tentative organizational framework for utilizing land-livestock laboratories. A group of activities called modules, elements of related agriculture science and business management practices which are common to all modules, and guidelines, policies, and procedures comprise the model concept. A swine feeding module was developed including management practices and guidelines. The module was pilot tested at a local vocational agriculture department.

Findings. -- It was determined that the model concept has desirable organizational characteristics which can enhance the desirability of utilizing land-livestock laboratories. The underlying philosophy should be that the laboratories provide experiences that are instructional in nature, provide integration of theory and practice, provide facilities and conditions for teaching by the "hands-on" concept, provide conditions to teach procedure by demonstration, provide a vehicle for application of approved practices and experiences in decision making. The swine feeding module as developed was used effectively as a part of the model concept.

BAILEY, K. LAMOYNE. Teaching Plans for Agribusiness Orientation. Plan "B" Report for Master of Science Degree, Utah State University, Logan, Utah. 64 p. Publication date 1970.

Purposes. -- To design teaching plans to assist teachers to introduce agribusiness to all agricultural students in the ninth or tenth grades. To motivate teachers and assist them in orienting students in agribusiness.

Methods. -- After reviewing literature in the area of agribusiness the author developed thirteen lesson plans to cover the area of orientation. The plans include the job or problem, the situation, teacher objectives, student behavioral objectives, motivation ideas, study guides, references, and analysis.

Findings and Conclusions. -- These plans include definitions, analysis of agribusiness in the local area, determining career opportunities, the need for occupational experience, the various methods of doing business, marketing of products and providing services. Study guides and a complete analysis are included for each teaching plan.

Availability. -- One copy is available through the Department of Agricultural Education, Utah State University, Logan, Utah 84321. A second copy is at the U.S.U. Library.

BARINGER, JOHN ROBERT. The Planning and Organization of County 4-H Camps in Montana. Master's Report, M.S., 1970 Montana State University, 117 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The purpose of the study was to analyze Montan's 4-H County Camping programs in terms of the various organizational functions and leadership training opportunities available. Further, the study was designed to provide essential data for the program planning efforts essential to those interested in improving 4-H camping programs.

Method. -- The population for this study included all County Extension Agents, Adult 4-H Campers and 4-H Junior Leaders that had any responsibility for planning and conducting a county 4-H camp in Montana during 1969. The sampling unit included County Extension Agents responsible for the counties camping program. Adult 4-H campers involved in the county program and 4-H Junior Leaders who assisted with the county 4-H camping program.

A questionnaire was sent to all County Extension Offices in the State of Montana. In addition to answering the questionnaire, each Extension Office was asked to furnish the names and addresses of the adult campers and junior leaders who assisted in the 1969 program.

A questionnaire was sent to a 59 percent random sample of Adult 4-H Leaders and Junior Leaders to obtain their views of the county camps.

Findings. -- A majority of the Adult Campers (62.7%) and 4-H Junior Leaders (68.7%) indicated they were involved with planning 4-H camp activities. Over 61 percent of the Adult Campers and 56.7 percent of the Junior Leaders rated their 4-H camp as "good" and well worth the time spent.

It was found that 18.3 percent of Montana 4-H members attended a camp which compares with 12 percent throughout the nation.

County Extension Agents spent an average of 5.2 man days per county for the planning and preparation of 4-H camps. They spent an average of 5.4 man days conducting camps for a total of 10.6 man days per county. Extension office secretaries spent an additional 3.65 days per county for work on 4-H county camps.

Recreational activities were stressed in all camps with 4-H Junior Leaders primarily responsible. Indications were that recreational activities were a major contributing factor for a successful camp.

The major strength of the 4-H camps were meeting new friends, involvements in planning, learning new knowledge and having a good time while weaknesses were lack of participation by adults, lack of planning, limited facilities, inclement weather and people who did not carry out their responsibility.

Availability. -- Available for loan from the Agricultural Education Department, Montana State University.

BRITTON, ROBERT L. The Value of School Land Laboratories. Master's report, 1970. Colorado State University. 144 p. Department of Vocational Education, Colorado State University, Fort Collins, Colorado.

Purpose. -- To determine the present extent of use and the value of school land laboratories in Colorado.

Method. -- Data were gathered from vocational agriculture teachers, high school principals, and local school board presidents who operated school land laboratories in 1969 in connection with their vocational agriculture programs, through responses to a questionnaire.

Findings. -- Of the vocational agriculture departments in Colorado, 48.4 percent operated a school land laboratory. The average size was 28.9 acres with 75 percent on the total number being less than 10 acres. Ninety-three and seven tenths percent of the facilities were located within five miles of the high school and 62.4 percent were completely livestock oriented. A written policy statement had not been adopted by the school board in 84.4 percent of the cases.

The respondents agreed that a school land laboratory should be organized and operated under the guidance of the vocational agriculture teacher and the advisory council and that the facility should be educational rather than money-making in nature.

The major advantages of the facility were determined to be that it provides for demonstration teaching and serves as a place for students to learn new skills. The major disadvantages were that students may have to limit the size of the individual projects because of space limitations and that the facility places an extra burden on the vocational agriculture teacher.

It was agreed that a written policy statement should be adopted by the local school board that provides for financial accountability and safety and liability for students and instructors. There was a stronger need for this statement expressed by the principals and board presidents than by the vocational agriculture teachers.

It was indicated that the money returned from the facility should be deposited in a special fund for operation of the laboratory.

It was the feeling of the respondents that a school land laboratory was necessary for a complete educational environment in vocational agriculture.

BOLZ, DARRELL GENE. A Study to Determine the Feasibility of an Adult Farm Records and Analysis Program in Idaho. Thesis, M.S., 1970. 52 p. University of Idaho, Moscow. Library.

Purpose. -- To determine the feasibility of establishing an Adult Farm Records and Analysis Program in Idaho. The objectives included: 1) determination of which vocational agricultural departments would lend themselves to such a program; and 2) exploration and discovery of the attitudes of both the vocational agricultural instructors and school administrators towards the possible establishment of a program in either the public high school or area vocational school.

Method. -- Data for the study was gathered by the use of a questionnaire. The questionnaire was mailed to each of the sixty-nine vocational agricultural departments in public high schools in Idaho. A return of 86.9 percent was obtained on the questionnaire.

Findings. -- Both vocational agricultural instructors and school administrators believed that a farm records and analysis program was needed. Financing the program, cost of additional instructors, and scheduling of class meetings were factors of concern in limiting the program. Only two areas of the state indicated in favor of the program being conducted by the area vocational school rather than through the public high school. Of the sixty questionnaires returned, eighteen (30 percent) of the instructors indicated interest and feasibility in the conducting of a Farm Records and Analysis Program.

Availability. -- May be had by inter-library loan from the University of Idaho Library, Moscow, Idaho 83843.

BORGEN, WAYNE HENRY. A Study Comparing the Variable Cost and Gross Income for Dry Pea Production and Spring Barley Production in Latah and Nez Perce Counties, Idaho. Thesis, M.S. 1969, University of Idaho, 45 p. Libaray, University of Idaho, Moscow, Idaho.

Purpose. -- The purpose of the study was to obtain information regarding the variable cost and gross income for the two most common spring crops in Latah and Nez Perce Counties, Idaho -- Spring barley and dry peas.

Method.--- Forty cooperating farmers in Latah and Nez Perce Counties agreed to keep a diary system of records on one field producing a spring crop for the crop year of 1967. The data obtained for this study were based on these farm records kept for spring barley and dry peas.

Findings. -- Gross returns for peas were considerably higher than barley. Even with higher production cost and labor output, peas showed a larger net profit to the farm operator.

Land values were high when compared to returns from crops produced on it. The larger farmers indicated greater willingness to spend more for machinery, fertilizer, spray operations, and other production cost, which resulted in increased yields and gross profits and ultimately increased net profits.

Availability. -- May be had by inter-library loan from the University of Idaho Library, Moscow, Idaho 83843.

BURLESON, LOU R. Occupational Opportunities in Agriculture in the Western Part of Cochise County, Arizona. Research Report, M. Ag. Ed. 1970. University of Arizona. 60 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- To determine the agricultural opportunities and training needs of persons engaged in agricultural occupations in Western Cochise County, Arizona.

Method. -- A complete survey of all agricultural producers and businessmen was conducted. Personal interview of all persons with ownership or managership responsibilities was utilized to obtain information pertinent to the study. The survey was conducted in the Benson, Tombstone, St. David, and Buena High School,Districts which composes the western part of Cochise County, Arizona.

Findings. -- There were 67 agricultural producers and businessmen interviewed in the survey. A total of 31 job titles were found to exist in the western part of Cochise County. All of the job titles were included in the seven occupational areas of 1) livestock and crop production; 2) livestock production only; 3) agricultural processing; 4) agricultural services; 5) crop production; 6) horticulture; and 7) farm supply. Competencies in animal science, field crop production, agricultural business management and marketing, and agricultural mechanics were found to be needed by the majority of the 148 persons employed in agricultural occupations in the western part of Cochise County, Arizona. Very few persons needed competencies in horticulture, forestry, and merchandising. Data pertaining to the 1) preference of farm experience; 2) preference of a farm background; 3) educational levels necessary for employment; 4) ages of persons engaged in agricultural occupations; and 5) salaries of agricultural employees were included in the study to determine characteristics of persons employed in agricultural occupations in the western part of Cochise County.

CHRISTENSEN, KENNETH WYNN. A Source List of Still Projection Materials Available for Teaching Agricultural Mechanics. Plan "B" Report, Master of Science Degree, Utah State University, Logan, Utah 84321. 66 p. Publication date 1970.

Purpose. -- To provide a comprehensive list of 35mm filmstrips, 35mm slide series, and commercial overhead transparencies for teachers of agricultural mechanics. To identify sources of projection materials and where possible a brief description and the cost.

Methods. -- Through the cooperation of personnel in Agricultural Education and the Instructional Media Departments, at the Utah State University, the literature published since 1960 in this area was reviewed. Catalogs and other publications were reviewed. Letters were written to 20 producers or distributors of instructional materials related to agricultural mechanics.

Findings and Conclusions. -- The list of still projection materials includes 30 under the heading of agricultural buildings and conveniences; 56 under electricity in agricultural mechanics; 108 under farm shop skills; and 94 under agricultural power and machinery. A description is given on each and prices on many of the visuals.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

CRUMP, KENNETH E. Visualized Instructional Units In Record Keeping For Vocational Agriculture. Plan "B" Report, Master of Science Degree, Utah State University, Logan, Utah. Publication date 1970, 52 p.

Purposes. -- Prepare teaching units including 35mm slides and tapes for the teaching of farm records. The units are to be used in the classroom to teach the entire class or by an individual or individuals in a carrel for individualized instruction.

Methods. -- Pictures, concepts, farm experience, and teaching experiences were combined to prepare ten units for instruction on record keeping. Areas included were: survey, financial statement, supervised farming, budgets, agreements, planning and record keeping.

Findings and Conclusions. -- The teaching units were prepared to supplement the Idaho Accounting and Record Book. Six hundred feet of tape and 116 35mm slides were prepared for use by individuals in the carrel.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

DALLEY, W. JAY. Alternatives in Machinery Management on Juab County, Utah Dry-Farms. Masters Thesis, Utah State University, Logan, Utah. Date of publication 1970, 55 p.

Purpose. -- To determine if there was a relationship between acres farmed and the cost of owning machinery. Were there alternatives to machine ownership that were acceptable to Juab County, Utah dry-farmers.

Methods. -- A questionnaire was prepared and sent to all dry-farmers in East Juab County who farmed 100 acres or more. Seventy one per cent of the questionnaires were completed and returned. The farms were listed in three groups - group I (small farms) 100-500 acres with an average of 302 acres; group II (medium sized farms) 501-1000 acres with an average of 729 acres; and group III (large farms) 1001-2600 acres with an average of 1871 acres.

Findings and Conclusions. -- The average cost of machinery per acre for producing grain was $10.99 for the small farms; $5.66 for the medium sized farms and $3.21 for the large farms. Where cost can be reduced to about 1/3 it would pay farmers of small acreage to consider alternatives in their dry-farm practices. Many problems are presented by cooperative or joint ownership programs.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

DESPAIN, TED ALLEN. A Comparison of College Grades of Former Students and Non-Students of High School Vocational Agriculture. Masters Thesis. Utah State University, Logan, Utah 84321. Publication date 1970, 36 p.

Purposes. -- To determine whether or not the high school students who studied vocational agriculture in high schools did as well at the university as the students who did not enroll in vocational agriculture in high schools.

Methods. -- Through a system of coding students to avoid individual student identification the grade point averages were made available for students who took agriculture and those who didn't take agriculture in high school.

Comparisons were made for students who registered in the College of Agriculture and colleges other than agriculture. The years at the university were from 1961-62 to 1965-66 and there were 189 former high school agricultural students and 100 former high school non-agricultural students in the study.

Findings and Conclusions. -- No significant differences existed in the college grade point averages for students who had taken agriculture and those who had not taken agriculture in high school.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

FIELD, J. TERRY. Crossbreeding for Greater Beef Profits. A Plan "B" Report. Utah State University, Logan, Utah 84321. Published date 1970, 32 p.

Purpose. -- To assist teachers of vocational agriculture to teach crossbreeding of beef animals.

Methods. -- The author reviewed journals, agricultural bibliographies, and texts on animal breeding. He interviewed professional personnel in the field of crossbreeding and cattlemen engaged in crossbreeding to supplement the review of literature.

From the information obtained he developed lesson plans in six different problem areas to assist teachers to follow the problem solving procedures in teaching crossbreeding of beef animals. Student behavioral objectives, motivational techniques, study guides, plans of action and references are suggested as aids to teachers.

Findings and Conclusions. -- The outline would encourage teachers to teach the advantages and disadvantages of crossbreeding and the need for improving purebreds to get better crossbred animals.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

FRITZ, GAREY DALE. Identification of Agri-Business Educational Needs in the Billings, Montana Trade Area. Master's Report, M. S. 1970, Montana State University, 77 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The major purpose of the study was to collect data pertaining to the development of Secondary, Post secondary and Adult level vocational technical course designed to prepare employees for agri-business. More specifically the study; 1) defined the geographic region considered to be the Billings, Montana Trade Area, 2) identified the types and numbers of agri-businesses in the Billings, Montana Trade Area, 3) analyzed types of employment in agri-businesses by ag-related jobs and job titles and 4) determined the educational levels desired of employees by agri-business firms.

Major Findings. -- Preservice and inservice training programs in all occupational areas would be valuable to future and present employees. Projections for 1975 indicate a 14.89% increase in number of full time employees for all occupational areas combined. In total, 49.15% of the business involved in the study is 100% agriculturally oriented. Of the businesses contacted, 50.85% classify themselves as being involved in the agricultural supplies area of agriculture. The study shows that 62.15% of the businessmen prefer their employees acquire preservice education through a combination of:

1) classroom education
2) shop or laboratory
3) on job training

If future employees are to satisfy employers they should receive their initial formal agricultural training preferably through Post Secondary Area Vocational Technical Centers. Inservice training programs for existing employees should be offered during evenings of the winter season. By analyzing the number of employees currently employed compared to the number of projected the number is greater than the current number for all occupational areas except administrative. However, to conclude that the number of administrative employees will decrease may not be valid and perhaps should be studied in more detail. Post Secondary Area Vocational Technical Centers could advantageously serve to train employees for occupations in agriculture.

Availability. -- Available for loan from the Agricultural Education Department, Montana State University.

HALL, FRANK L. An Occupational Survey of Former Vocational Agriculture Students Who Graduated from Emery County High School and an Evaluation of the Course Offerings in Vocational Agriculture. Masters Thesis, Utah State University, Logan, Utah 84321. Publication date 1970, 57 p.

Purposes. -- To determine the present occupations of former students of vocational agriculture who had enrolled in vocational agriculture at the Emery High School for two or more years.

To determine the value of FFA and other phases of vocational agriculture to former students.

To collect information that may aid in revising the curriculum in vocational agriculture to meet the needs of students.

Methods. -- With the approval of the administrative officials the principal of the junior high school obtained the names of students, names of parents, the year students were enrolled in agriculture, and the years they graduated from high school.

Questionnaires with stamped return envelopes were sent to the students who were in school during the years 1963-68 inclusive. Of the 180 questionnaires sent 138 were returned. Students evaluated the curriculum and listed their present employment status.

Findings and Conclusions. -- Students rated FFA, agricultural mechanics, livestock production, and agricultural economics in the above order as being very important.

They rated crop production, agribusiness, and ornamental horticulture as less important. This was probably due to a lack of depth in agribusiness and ornamental horticulture as it was stressed that non-farm agricultural occupations should be stressed. There were 23.11 percent of the former students who were engaged in agricultural occupations.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

HARDY, DUANF M. The Prevention of Accidents in the Agricultural Mechanics Shops in Wyoming. Masters Thesis, Utah State University, Logan, Utah 84321. Publication date 1969, 63 p.

Purposes. -- To determine the safety practices used by Wyoming teachers of vocational agriculture.

To determine the nature and seriousness of injuries occurring in the agricultural mechanics shops in Wyoming.

To determine the probable cause or causes of the accidents.

(The study was limited to the agricultural mechanic shops in the secondary schools of Wyoming)

Methods. -- Background information was obtained from the review of studies previously completed in agricultural mechanic safety. Following this review a questionnaire was sent to each of the 53 teachers of vocational agriculture in Wyoming. Fifty-one teachers responded. The teachers indicated their opinions as to the effectiveness of teaching safety in their shops by checking nine different safety areas. They reported accidents and injuries in their shops and the causes and responded to questions on fire prevention and control, eye protective devices, first aid kits, and safety inspection procedures.

Findings and Conclusions. -- Most (274) of the 310 injuries that were reported were of a minor nature. Injuries from burns (119) headed the list. Five burns were serious. There were 60 eye injuries reported, ten of which were serious. Fifty nine students received cuts (11 were serious and 1 severe). Bruises, abrasions, electrical shocks, and one broken bone completed the list.

Personal factors: lack of concentration, unsafe practices, and disobedience were the main causes for accidents.

Proper instruction including demonstrations before operating equipment, written safety regulations, definite rules for shop cleanliness were the best methods for preventing accidents.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

HOFMAN, DOROTHY LARSEN. Spending Patterns of Indian People on Fort Peck Reservation in Montana. Master's Report, M.S., 1970, Montana State University, 58 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The purpose of this study was to determine what percentage of the Fort Peck Indian family's income was spent on food, housing and household necessities and what percentage was being spent on luxury items.

Method. -- The population for the study included the heads of households of 86 Indian families living in the low rent government housing units in three communities on the Fort Peck Indian Reservation. An interview schedule was administered to 23 heads of households randomly selected from the population to accomplish two major objectives: 1) to determine what essential items and non-essential items are purchased in areas of foods, clothing, and housing; 2) to make recommendations of effective methods for teaching Indian families how to budget their income.

Major Findings. -- Data from the responses of the 23 heads of households indicated: 1) 61.6 percent of those living in the households were under 16 years of age, 2) one-half of the households spent between 20 and 30 dollars for food per week, 3) 95.7 percent of all meat consumed was purchased as single cuts, 4) a large percentage of the food dollar was spent on convenience foods, 5) all families received surplus foods, 6) there were more televisions and radios in the households than any other single furnishing.

All respondents indicated they would like to receive food stamps but 65.2 percent had no opinion on whether they were willing to give up surplus foods for stamps. Although the respondents were interested in learning how to stretch their food dollar they were more interested in learning about food value and body needs than budgeting.

An analysis of the data pertaining to family income revealed that 21.7 percent of the households had an income from $3,500 to $3,999 with the largest group, 65.2 percent, indicating that welfare and government payments were their major source of income. No families received less than $1,500 and 13 percent were receiving over $5,000 of income.

It was concluded that Indian households depend on public assistance to subsist, thus, Indian income was low. But, because the Indian people do not have the expenses (taxes, medical, and dental expenses, etc.) non-Indians have, they can subsist on less. Therefore, it would appear that money management is a major problem.

Availability. -- Available for loan from the Agricultural Education Department, Montana State University.

LARSEN, KNUD C. B. Adult Agricultural Education for the Crow Indian Farmers and Ranchers in Montana. Master's Report, M.S., 1969, Montana State University, 117 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The purpose of the study was to determine what can be done to increase the awareness and interest in adult education programs and make them more appealing and useful to the Crow Indian farmers and ranchers, so that ultimately their farming and ranching operations might be more progressive. The specific objectives for the study were: 1) to determine something about the personal characteristics of the Crow Indian farmers and ranchers, 2) to determine why previously conducted adult agricultural classes held for Indians on the Crow Reservation were poorly attended and 3) to determine and propose a more realistic program of agricultural education for adults which will interest and benefit the Crow Indian farmer and rancher.

Method. -- The names of one-half of the 85 Crow Indian farmers and ranchers on the Crow reservation at Hardin, Montana, were randomly selected to participate in the study. Personal interviews were conducted with 40 Crow farmers and ranchers to gather data regarding their attitude toward adult education.

Major Findings. -- Of the 40 respondents, 17 had attended adult agricultural classes. Thirteen had attended classes sponsored by the Extension Service and eight had attended classes sponsored by other agricultural agencies while four had attended both types of classes.

The majority of the respondents were aware of the classes and most frequently attended classes related to livestock production and veterinary science. The greatest number of ranchers and farmers attended when the classes were held in their immediate area.

The primary motivation for attending agricultural classes was the search for new information to improve agricultural practices.

There were varying opinions as to why attendance at agricultural meetings were low. Reasons cited included: 1) teaching was at too high a level, 2) the distance to the meeting place was too great, 3) operations so small that they would not benefit from the instruction. Sixty-two percent of the respondents stated that the meetings were held at a bad time and 42.5 percent felt the meetings were held in a bad location.

Availability. -- Available for loan from the Agricultural Education Department, Montana State University.

LOEWEN, CURTIS EUGENE. A Curricular Model in Ornamental Horticulture for Vocational Agriculture in Oregon. An Abstract of the Thesis for Doctor of Education Degree, April 1970.

Purpose. -- The central purpose of this study was to formulate and test a model for securing information from the ornamental horticultural industry that would provide a basis for curriculum development in vocational agriculture. In order to develop the model, it was neccessary to accomplish the following:

1) Determine typical occupations in ornamental horticulture from employment survey data.
2) Survey a randomly drawn sample of the total population to determine agricultural and business competencies needed for successful performance in the typical occupations.
3) Determine agricultural and business competencies common to most all the typical occupations.

An interview schedule was developed with the assistance of an advisory committee composed of representatives from seven occupational groups in the ornamental horticultural industry. The instrument contained 100 competencies which were identified as important to the satisfactory performance of typical workers in each of the occupational areas.

Methods. -- Personal interviews were conducted with employers from 56 business firms and agencies located in nine Willamette Valley counties in Oregon. The interviewees were distributed equally among florists, landscapers, and workers employed in garden centers, greenhouses, nurseries, golf courses and parks. The employers rated each knowledge and skill team as to its relative importance for the typical worker in question.

The competencies were analyzed and ranked according to mean scores in relation both to their particular occupational groups and as a composite of all the occupational groups. Those items rated as "essential" or "important" by 50 percent or more of the respondents were identified for all seven occupational categories. Mean score comparisons were also made between the respondents and the panel of experts. There were a total of 45 competencies identified as being important and common to all seven occupational categories in the ornamental horticultural industry.

Findings. -- It was found that human relations and communications skills were rated in the top nine competencies considered important for all workers in ornamental horticultural occupations. Rated most important in the technical areas were knowledge and skills pertaining to basic plant growth and characteristics, soil composition and drainage, fertilizer materials, pest control, use of chemicals, and basic business operation. The more specialized competencies, particularly those relating to floral and landscape design, were rated least important for horticultural occupations outside these specific areas.

Competencies rated important to each of the seven occupational groups were also identified. Landscaper and garden center groups identified the largest number, 64, of necessary competencies. The smallest number of necessary competencies, 27, was listed by the florist group. A range of 43 to 61 items of knowledge and skills were rated as important to the other four groups. There was general agreement between the respondents and the panel of experts in all the occupational areas.

This research demonstrated that occupational information for curriculum development in ornamental horticulture can be obtained through the systematic procedure employed in this study. The implications of this study are that the same procedure can be used with other off-farm agricultural industries. The major recommendation was to consider the competencies identified for typical ornamental horticulture workers in the development of the vocational agriculture curriculum.

Availability: -- Available from University Microfilms.

LUFT, VERNON DALE. Determining the Need for Special Programs in Vocational Agriculture for Handicapped and Disadvantaged Students in Montana; Department of Agricultural Education, Montana State University, Bozeman, Montana. Master's Report, M. S., 1970, 97 p.

Purpose. -- The purpose of this study was to examine the existing programs of Vocational Agriculture in Montana to determine the need for special programs for the handicapped and disadvantaged students enrolled. Three objectives were formulated to determine this need: 1) to quantify the number of handicapped and disadvantaged students enrolled in the vocational agriculture programs in Montana, 2) to determine to what degree disadvantaged or handicapped students are being served in programs of vocational agriculture in Montana, 3) to determine if existing vocational agriculture programs can be designed to accommodate the needs of the handicapped or disadvantaged in terms of gainful employment or continuing education upon completion of the program.

Method. -- A survey questionnaire was prepared and sent to each vocational teacher in the State of Montana. Each teacher was asked to identify the handicapped and disadvantaged students in his department based on a criteria established by the researcher. Additional information was requested regarding activities especially designed for the handicapped and disadvantaged. Follow-up letters were sent to all non-respondents.

Major Findings. -- Thirty-seven of the respondents reported they were making special efforts to help the handicapped and disadvantaged and 68.6 percent of these were doing so on an individual basis. Very few teachers used cooperative work experience generally because work stations were not available. Approximately 95 percent of those offer programs for handicapped and disadvantaged did so without the aid of a planned course of study.

Over sixty percent of the respondents not offering special programs for handicapped and disadvantaged students felt they could perform satisfactorily in their vocational agricultural class. However, 76.9 percent of the respondents reported the scores of the handicapped and disadvantaged students were lower than other members of the class.

One-half of those not now offering special programs for handicapped and disadvantaged felt their program could be adjusted to offer special instruction. However, over 52 percent of the respondents felt teachers would need additional training before offering special programs for handicapped and disadvantaged students.

It was concluded that 1) the largest number of handicapped and disadvantaged were among the 14 to 16 age group, 2) few students from minority groups were enrolled in vocational agriculture, 3) most handicapped and disadvantaged are identified at the high school level, 4) teachers of agriculture are not adequately prepared to teach students with special needs, 5) and very few departments are utilizing all federal funds available for programs for the handicapped and disadvantaged.

Availability. -- Available for loan from the Agricultural Education Department, Montana University.

MERRILL, FRED KIRK. A Study of Vocational Retraining of Dismissed Employees in a Selected Area of Washington. Thesis, M.S., Ag. Ed., 1970, Washington State University. 48 p. Washington State University, Pullman.

Purpose. -- The purpose of this study was to determine what happens to 121 employees when an industrial combination of mineand mill ceases to operate and dismisses its work force. Determination of the need for vocational retraining of employees was based upon their employment one year following the plant closure. A comparison of employees requesting retraining was made with their educational attainment, age, marital status, and community participation. The location of retraining site and assumption of costs necessary for retraining were identified.

Methods. -- A questionnaire was mailed to all previous male workers to determine their opinions on retraining and to gather data concerning employment following termination of their former employment. They were asked if they were willing to participate in vocational retraining in order to obtain employment or upgrade their present positions.

Findings. -- The results of this study indicate that a limited amount of retraining is desired since 91% of the dismissed employees were employed after a one year adjustment period. A large share of those requesting retraining were under-employed and desired to advance within their positions or wanted to change occupations.

There was a willingness and desire to participate in vocational retraining by those persons who had a higher than average educational level of the surveyed workers. Willingness to retrain diminished as age increased and as the number of dependent children decreased. No relationship between community involvement and willingness to undergo vocational retraining was observed.

This community did much to offset the adverse effects of the plant's closure by directing efforts towards obtaining other industries to locate within the area.

MERRILL, TERRY H. A Course of Study and Lesson Outlines in Oxy-Acetylene Welding. Plan "B" Report, Master of Science Degree, Utah State University, Logan, Utah 84321. Publication date 1970, 88 p.

Purposes. -- To prepare a series of teaching plans to conserve teacher time and to get high quality performance in welding, brazing and hard surfacing with oxy-acetylene.

Methods. -- The author reviewed all available references and teaching outlines determined the units to be taught, and the objectives to be attained. He set up 23 lesson outlines that included units of instructions on setting up equipment, safety, running beads, welding in various positions, brazing, and hard surfacing.

The format used included the situation, objectives - teacher's and student's behavior, student motivation, study guide questions, references, equipment-tools-materials, analysis of study questions, and an operational procedures breakdown under "Steps to follow" and "Key points".

Findings and Conclusions. -- Where oxy-acetylene is used considerable time may be saved in using these lesson outlines. Teachers should be able to improve their teaching and students improve the quality and increase the quantity of work.

Availability. -- Department of Agricultural Education, Utah State University, Logan, Utah 84321.

MILHOLLAND, KENNETH DEAN. A Feasibility Study to Determine the Need for a Farriers' School in Western Washington. Thesis, M.S., Ag. Ed., 1970, Washington State University. 46p. Washington State University, Pullman.

Purpose. -- The purpose of this study was to determine if a need exists for the establishment of a farriers' school in Western Washington.

The specific questions that this study attempted to answer were:

1. Is there sufficient demand for trained farriers to warrant the establishment of a farrier's school in Western Washington?
2. Is the present competency of practicing farriers below the standard demanded by horse owners?

Methods. -- A questionnaire was sent to 500 members of the Washington State Horsemen, Incorporated, to learn the horse owner's opinion of the need for more trained farriers and horse owner's opinion of the need for more trained farriers and horse owner's opinion about the competency of the practicing farriers. Horse owners were selected randomly from about 2,000 members residing in the South Puget Sound area in the counties of King, Pierce, Snohomish, Thurston, and parts of Lewis and Skagit. This writer also gathered information by personal interviews with 17 full time farriers.

Findings. -- The findings included: (1) All members of the Washington State Horsemen, Incorporated, living in the South Puget Sound area own about 6,976 horses. It requires about 46 farriers to shoe 6,976 horses annually. One might safely assume that there are more horses in the South Puget Sound area, not owned by members of the Washington State Horsemen, requiring the service of farriers. (2) Farriers working full time represented 56.8% of the total of the farriers serving horse owners. (3) Twenty percent of the horse owners stated that their farriers were readily available. More farriers were needed according to 81.4% of the horse owners polled. (4) When asked if a farriers' school was needed in Western Washington, all farriers replied in the affirmative.

The response of horse owners and farriers indicate to this writer that the level of competency of practicing farriers is below the standard demanded by horse owners as these data indicate: (1) Twelve of 17 need help in a special area and only 44% of the horse owners felt that their farriers could perform any kind of shoeing job that might require special training.

It was concluded that a need exists for the establishment of a farriers' school in Western Washington.

PHILLIPS, JAMES DAVID. The Agricultural Extension Program of West Godavari District. Adnhia Pradesh, India. Master's Report, M.S., 1970, Montana State University, 84 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The purpose of this study was to explain the current agricultural extension program and the socio-economic history leading to the development of such a program, with emphasis on the socio-economic conditions of the population at present; with the implications these conditions have for the extension program. Four objectives were developed for the conduct of the study:

1. To describe the socio-economic conditions that have led to the development of the agricultural extension program as it exists in India today.
2. To identify the agricultural needs of the people and determine if these needs are being served by the extension service.
3. To make recommendations regarding the extension agent's (V.L.W.'s) pre-professional educational program.

Method. -- A purposive sample of 42 Village Level Workers' (V.L.W.'s) and 89 Village Level Worker (V.L.W.) trainees in West Godavari Districts, Andhra Pradesh, India, was identified for the study. Each V.L.W. was asked to complete a questionnaire and each V.L.W. trainee was interviewed to gather data regarding the Agricultural Extension program.

Major Findings. -- Approximately 64 percent of all V.L.W.'s felt the training program was necessary for the fulfillment of V.L.W. duties and activities. Over 50 percent of the respondents indicated that the agricultural training course was an essential part of the training program. The V.L.W.'s generally agreed that more practical experience was needed.

Sixty percent of the V.L.W.'s felt the need for credit and use of fertilizers were the most pressing needs of the villagers while 56 percent of the V.L.W. trainees identified the change from old agricultural methods to new agricultural methods as the most pressing problem in the villages.

All of the V.L.W. trainees felt their training program had been adequate but indicated a need for more emphasis on extension methods during the training period.

Most trainees expressed a desire to improve rural conditions while over 47 percent indicated their reason for wanting to be a V.L.W. was to change the outlook of the people.

It was concluded that extension methodology is an area of growing concern among V.L.W.'s and more extensive training was needed to prepare them to perform their duties.

Availability. -- Available for loan from the Agricultural Education Department, Montana State University.

PHILLIPS, LOREN J. "Vocational Agricultural Curriculum Study in Utah County." Masters Thesis. Utah State University, Logan, Utah 84321. Publication date 1970 - 85 pages.

Purposes. -- To evaluate the curricular areas in vocational agriculture in Utah county to determine opinions of former students, teachers of vocational agriculture, and school administrators as to their values in the program needed in agriculture.

Methods. -- Questionnaires were mailed to 720 former students, 42 teachers of vocational agriculture (14 in Utah County and 28 selected at random in Utah), and 22 school administrators and supervisors. Each rated the eight curriculum areas listed on the questionnaire. The eight areas included a total of 69 units of instruction.

Returns from available persons were 72.7% for former students, 89.3% from Utah teachers, and 86.4% from administrators and supervisors.

Of the teachers of agriculture in Utah there was a 100% response.

Findings and Conclusions. -- There was considerable variation in the ratings of some of the eight areas. Many were not familiar with recent changes in vocational agriculture and did not know what to do with courses in agribusiness, ornamental horticulture, small engines, etc.

The study assisted many to become more familiar with offerings in vocational agriculture.

Availability. -- One copy at the Department of Agricultural Education, Utah State University, Logan, Utah 84321.

PRIBYL, JAMES DAVID. The Correlation of Selected Visual Characteristics in Judging Beef Cattle to Carcass Data Using the Montana Steer of Merit Steers From 1969. Master's Report, M.S., 1969, Montana State University, 55 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The purpose of the study was to determine those characteristics which should be emphasized in selection to improve longevity, efficiency, productivity, and net worth of beef animals.

Method. -- Fifty-one 2 x 2 color slides of Angus, Hereford, and Crossbreed steers were selected from a series of slides taken at the 1969 Great Falls Fair. From 51 steers selected, the side views of 7 Herefords, 7 Angus, and 7 Crossbreeds were randomly selected and placed in a slide carousel in random order for review by a panel of judges. The rear views were matched and placed in another carousel. The remaining 30 slides of both views were matched in other carousels. The first 21 slides were used to train members of an Advanced Livestock Judging Class at Montana State University.

The class members were asked to estimate the wholesale worth in dollars per 100 pounds of the animal on the basis of seven criteria:

Warm Carcass Weight	525-700 pounds
Dressing Percentage	61 percent
Fat Over Ribeye	not over 1/10 inch per 100 lbs. of carcass weight
Kidney and Pelvic Fat	not over 3%
Ribeye Area	at least 2 square inches per 100 lbs. of carcass weight
Carcass Grade	choice of higher
Carcass Conformation	choice of higher

Following the training session, the students viewed the remaining 30 slides and estimated their worth on the basis of the seven predetermined factors. A panel of experts from the beef industry also viewed the 30 slides and estimated the worth of the steers. The correlations between values were then analyzed and reported.

Major Findings. -- One-third (33.3%) of the animal science students were able to select animals as to their actual wholesale worth using the selection criteria designated in the study while two-thirds (66.6%) of the class were able to choose some characteristics in order to acquire correlations of significance to the .05 level. As a group, the animal science students were able to determine the actual wholesale worth of an animal on the basis of the criteria given.

One of the livestock experts was able to evaluate the wholesale value of the steers using fat at the basis for evaluation at a significant level. However, when correlated as a group the scores were not correlated at a significant level. The individual and composite scores of the experts did indicate they were able to determine the wholesale worth of the steers using muscling as the major criteria.

Availability. -- Available for loan from the Agricultural Education Department, Montana State University.

PRUETT, LEONARD T. Educational Interests and Desires for Adult Farmer Instruction in Agriculture in Colorado. Master's report, 1970. Colorado State University. 102 p. Department of Vocational Education, Colorado State University, Fort Collins.

Purpose. -- To determine educational interests and desires of adult farmers, necessary to develop long-time programs of instruction for adult farmers in Colorado.

Method. -- Data were collected by a questionnaire survey of 100 farmers selected at random from a composit list of farmers enrolled in adult farmer classes throughout Colorado.

Findings. -- Family size averaged 2.9 children per family, 93.7 percent were married, 65 percent were between ages 25 and 40, and 28.6 percent had sons who had received vocational agriculture training in high school.

These farmers had an average of 15.4 years of farming experience, 12.1 years of education, and 15.9 percent graduated from college.

Two-thirds were full-time farmers or ranchers, 60.3 percent were land owners. The two main types of farming were (1) cash crop and beef fattening, and (2) general diversified.

Areas of interest and desire for instructional programs were: beef breeding, beef fattening, technical agriculture associated with livestock and crop production, farm and ranch management, and farm mechanics.

Frequency of meetings preferred were 1 class per week for 10 weeks or 2 classes per week for 5 weeks, beginning in December or January.

Tuesday evening meetings were preferred, while Monday and Thursday evenings were second and third choices respectively.

Reasons for missing adult farmer classes were: worked on farm too late, illness, social, civic, and church activities, and extreme weather conditions.

Seventy-five percent of the farmers had farm shops and did an average of 70 percent of their repair, maintenance, and construction work.

Hobbies included, bowling, hunting, fishing, boating, golf, rodeo and skiing.

REYNOLDS, ELDON R. An Evaluation of the Pre-Service Program in Agricultural Education at Colorado State University. Master's report, 1970. Colorado State University, 156 p., Department of Vocational Education, Colorado State University, Fort Collins.

Purpose. -- To assess the effectiveness of the pre-service program in agricultural education at Colorado State University.

Method. -- Data were collected by the use of two mailed questionnaires. One questionnaire provided direct curriculum evaluations by 77 graduates and the other questionnaire provided evaluations of the graduate's performance by 27 administrators.

Findings. -- Sixty-three percent of the respondents who had graduated during the previous five years were teaching vocational agriculture.

Graduates rated 66.0 percent of the undergraduate courses as being "of considerable help," 28.3 percent "of some help," and 5.6 percent "of no particular help." Courses rated "of no particular help" were American Government, The Agricultural Profession, and Educational Growth and Behavior.

The courses most frequently listed as most valuable were advanced technical agriculture courses.

Most of the courses considered least valuable were introductory or exploratory courses.

There was little difference between graduates teaching vocational agriculture and graduates not teaching vocational agriculture in the occupational helpfulness ratings of the courses.

Student teaching experiences were generally rated as being adequate by all groups. Student teaching was by far the most frequently listed "most valuable" course. However, those student teaching experiences that dealt with the administration of the vocational agriculture department, maintaining relationship with community groups, working with advisory councils and conducting young farmer classes were rated as being somewhat inadequate.

Graduates expressed a feeling that most of the guidance, counseling, and job placement activities performed by staff members in the agricultural education section were "most adequate."

Vocational agriculture majors did not participate to any extent in any student activities except Alpha Tau Alpha.

Self-ratings of competency indicated graduates felt "somewhat adequate" in their competencies at the time of their graduation in 13 of the areas listed and "inadequate" in five of the areas listed.

Administrators rated vocational agriculture teachers very favorably concerning personal traits, preparation and professionalism. The highest rated personal trait was standards of morality, and the lowest rated personal trait was originality. Administrators indicated that the vocational agriculture teachers were more competent in their knowledge of subject matter than they were in the skills of teaching the subject matter.

SOPER, JACK A. "Teaching Plans in Range Management for Utah High School Vocational Agricultural Programs." Plan "B" report, Master of Science Degree. Utah State University, Logan, Utah 84321. Publication date, 1970, 100 pages.

Purpose. -- To prepare a series of teaching plans to assist teachers to teach the various phases of range management.

Method. -- The author used Karl Parker's bulletin "The Nature and Use of Utah Ranges" and other references to develop twelve lesson plans that included history, plant identification, poisonous plants, judging, conservation, and managing a range.

The format for the plan included the situation, objectives - including student behavioral, motivation, study guides, references, plan of action, and analysis.

Findings and Conclusions. -- Although the plans were developed for Utah they could readily be adapted to other ranges in the Rocky Mountain area. The references and analysis provide information that will save time for busy teachers.

Availability. -- Department of Agricultural Education, Utah State University, Logan, Utah 84321.

UNDERWOOD, AMOS HARVEY. A Study of Ranch Management Practices in Navajo County, Arizona. Research Report, M. Ag. Ed., 1970, University of Arizona. 60 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- The purpose of this study was to assess the Ranch Management Practices utilized by ranchers in Navajo County, Arizona, with implications for planning educational programs.

Method. -- A mailed questionnaire was used followed by personal interview to determine what ranch management practices were followed by 40 selected ranchers. These practices were compared with a developed list of 22 measurable recommended practices. From the findings an educational program was recommended.

Findings. -- Of 22 measurable approved ranch management practices compared with practices followed by ranchers, 7 were above and 15 were below the 50 percent level. The 7 of 22 practices above the 50 percent level included: (1) Use of protein feed. (2) Disease control. (3) Use of salt. (4) Use of phosphate. (5) Special treatment of heifers. (6) Use of vitamin A. (7) Breeding yeerling heifers. The 15 below the 50 percent level were: (1) Grub control. (2) Seasonal breeding. (3) Use of salt. (4) Treatment for lice. (5) Treatment for flies. (6) Water distribution. (7) Pregnancy testing. (8) Selling non-breeders. (9) Flushing cows. (10) Record tested bulls. (11) Calf crop. (12) Selecting replacement heifers. (13) Weaning weights. (14) Use of stilbesterol. (15) Selling at auction. It was found that these could be used as a basis for recommending an educational program.

WILLIAMS, ELLIS EDWIN. Leaders' Views About Community Development in South Central Montana. Master's Thesis, M.S., 1970, Montana State University, 200 p. Department of Agricultural Education, Montana State University, Bozeman, Montana.

Purpose. -- The study was undertaken to evaluate how identified community leaders in the eight county areas in South Central Montana viewed community development and the community concept.

Method. -- A purposive sample of one hundred and two leaders from an eight county area were selected to participate in the study. Respondents were interviewed by trained interviewers using a forced answer questionnaire. Data were tabulated and presented by response frequencies and percentages. The data were then correlated to obtain significant relationships between study variables.

Major Findings. -- It was found that attitudes of leaders about community development are important variables when attempting to measure the effectiveness of any community development program.

Seventy-seven point five percent of the identified leaders were aware of existing development organizations, and of these, 76.5 percent had been or were members of such organizations. Leaders felt generally that their development organizations had accomplished some important things; however, they generally did not feel they were ideally organized for community development.

Leaders generally agreed that everyone benefits from programs of community development, and that one of the keys to successful development is to pay close attention to the wishes and opinions of people affected by community development.

Involving and informing people were major problems of community development; however, leaders generally agreed that people in their communities do care enough to do something about problems that need solving.

Leaders felt that they, the community, carry out most community development activities, and not people who were paid to carry out community development.

The Extension Service has supported organized community development, been cooperative, and quite effective. However, as leaders; education, occupation, and income levels tended to increase, their evalution of Extension's effectiveness tended to decrease.

Most leaders favored a multi-county approach to community development, both to attempt problem solving to problems that cross county boundaries, and to supplement local development efforts.

The majority of leaders favored some outside assistance with problem solving, and the more they favored multi-county development, the more they tended to desire outside assistance.

Urban and rural people did not tend to understand each other; problems to the extent desirable for them to cooperatively work together on community development.

Availability. -- Available through inter-library loan from the Montana State University Library, Montana State University.

WILLIAMS, JAMES EVERETT. Comparison of Major Area Problems by Leaders in Apache and Navajo Counties. Research Report, M. Ag. Ed., 1970, University of Arizona. 41 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- The purpose of the study was to determine if Area Leaders, County Supervisors, and Community Leaders in Apache and Navajo Counties (Indian Reservations excluded) recognized the same major area problems and ranked them similarly.

Method. -- A mailed questionnaire was used to gather the opinions of Area Leaders, County Supervisors, and Community Leaders as to what were the ten major area problems and how these problems should be ranked. Rankings by types of leaders were compared.

Findings. -- Twelve Area Leaders, six County Supervisors, and seventy-five Community Leaders recognized ten major area problems and ranked them similarly. The ten major area problems were: (1) Employment Opportunities. (2) Capital for Development. (3) Highways and Roads. (4) Education and Training (facilities and programs). (5) Planning and Zoning. (6) Sewer Systems. (7) Recreation Facilities. (8) Airport Improvement. (9) Medical Facilities. (10) Tourist Services (facilities and training). It was found that major area problems can be identified by area leaders and county supervisors sufficiently to justify using these persons to identify major area problems in lieu of conducting community surveys.

WINTER, L. BEN. "Setting Up Record Systems for Sugar Beet and Beef Feeding Enterprises." Plan "B" Report for M.S. Degree. Utah State University, Logan, Utah 84321. Publication date 1970 - 70 pages.

Purpose. -- To develop lesson plans for the use of teachers of agriculture in teaching record keeping and making entries in the Utah Record of Programs in Vocational Agriculture book.

To get more accurate records on agricultural production programs.

Method. -- Sixteen lesson plans were prepared for teaching all phases of entries including the farm survey, agreements, inventories, book entries, enterprise analysis, and summaries. The plans are based on the problem method of procedure and suggest behavioral objectives for students.

Findings and Conclusions. -- Sample sheets with entries are used throughout the bound report and teachers who have seen it have asked for a copy. The report may be helpful in states other than Utah.

Availability. -- The Department of Agricultural Education, Utah State University, Logan, Utah 84321.

RESEARCH STUDIES IN PROGRESS

BICKLE, LOWELL. A Follow-up Study of the 1950-55-60-65-67 Bachelor's Degree Graduates of the Montana State University College of Agriculture. Professional Paper, M.S., Montana State University, Bozeman, Montana.

BROSTEN, EINAR. The Student Recruitment Program at the Helena Vocational Technical Center and its Effect on the Students Selection of the Helena Center. Professional Paper, M.S., Montana State University, Bozeman, Montana.

BROWN, JAMES C. The Identification of Opinion Leaders Among Vocational Agriculture Teachers in Arizona, M. Ag. Ed., University of Arizona

BURNS, WILLIE J. Types of Vocational and Technical Education Needed to Meet the Changing Employment Patterns in a Selected Section of Arkansas; Colorado State University, Master's Report.

CHURCH, LARRY JAMES. A Study of the Trends in Relation to FFA Participation at Idaho State and County Fairs, M. S. Agricultural Education Thesis Study, University of Idaho.

FAUST, JAMES M. The Development and Evaluation of a Student Reference for Teaching Soils in the Core Curriculum. M. Ag. Ed., University of Arizona.

HOLLAND, ROY D. Factors Associated with Tenure of 4-H Club Members in Cochise County Arizona. M. Ag. Ed., University of Arizona.

HULS, DONALD C. Development and Evaluation of Teaching Units Related to the Nebraska Vocational Agriculture Farm Account Book. M. Ag. Ed., University of Arizona.

JIBAJA, HENRY. Attitudes Held by Colombian Villagers and Colombian Government Officials Toward Peace Corps Volunteers Working in the Basic Community Program. Thesis, M.S., Montana State University, Bozeman, Montana.

JOHNSON, CHARLES G. Leadership Training for Student Officers of State Vocational Youth Groups; Colorado State University, Master's Report.

KLUTH, WILLIAM FLOYD. An Evaluative Study of Possible Environmental Pollution Control Activities Which Could be Promoted by Vocational Agriculture Departments in Idaho, M. S. Agricultural Education Thesis Study, University of Idaho.

MERRELL, DEAN M. Development and Evaluation of Instructional Units Dealing with Principles of Animal Breeding. M. Ag. Ed., University of Arizona.

MUNDT, JOHN P. A Study of the Off-Farm Agricultural Occupations Potential in Ada County, Idaho, M. S. Agricultural Education Thesis Study, University of Idaho.

MUNGEN, THEOPHILUS W. A Study to Determine the Counseling Needs of Vocational Agriculture Students in Idaho, M.S. Agricultural Education Thesis Study, University of Idaho.

PARKER, DONALD. The Development of Guidelines for Initiation of Summer Internship Programs in Agricultural Education. M. Ag. Ed., University of Arizona.

SCHLIGHTING, HARLEY O. Professional and Technical Needs of Post-Secondary Teachers of Agriculture in the Technical Areas of Grain and Livestock. Professional Paper, M.S., Montana State University, Bozeman, Montana.

STUCKI, SPENCER E. A Study of the Need for an Adult Farmer Program in Farm Management in Bear Lake County, Idaho. M.S. Agricultural Education Thesis Study, University of Idaho.

WOODRUFF, DENNIS EARL. A Study of the Inservice Training Needs of Vocational Agriculture Instructors in the State of Idaho, M.S. Agricultural Education Thesis Study, University of Idaho.

STAFF STUDIES: UNIVERSITY OF ARIZONA.

Occupational Opportunities and Training Needs for Agricultural Employment in Selected Areas of Arizona.

Follow-up Study of Agricultural Education Graduates of the University of Arizona.

Development and Evaluation of Instructional Units for Teaching Principles of Agricultural Science.

PREPARATION OF A THESIS OR DISSERTATION SUMMARY

(Prepared by the ERIC Clearinghouse for Vocational and Technical Education for the Research Committee of the Agricultural Education Division of the American Vocational Association)

Guidelines

1) A summary should inform the reader of the intellectual content of a study, not merely describe the content.

2) A summary should be written in simple, clear, concise, and complete sentences in the third person, past tense.

3) A summary should provide a logical and unified presentation of the purposes, methods, and findings.

Content of Summary

The essential features of a summary, which should be included when applicable, are listed below.

Purposes

Primary purpose
Specific objectives
Scope and limitations

Methods

Population (e.g. geographical, social, political, economic)
Sample
- Size
- Selection (e.g. random, purposive, stratified, incidental)
- Response rate

Data collection
- Instrument type, formulation, and validation
- Sources
- Techniques

Data Analysis
- General design
- Statistical treatment

Findings and Conclusions

(Because the length of the summary is limited to 300 words, findings and conclusions should be selected for inclusion upon the basis of their relative importance)

Availability

(Where the document is available for examination, whether it may be purchased from University Microfilms, and whether it is available on interlibrary loan)